

**Dayton Sand & Gravel Co., Inc.**  
**York County**  
**Hollis Center, Maine**  
**A-583-71-E-R**

**Departmental**  
**Findings of Fact and Order**  
**Air Emission License**

After review of the air emission license application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

**I. REGISTRATION**

**A. Introduction**

Dayton Sand & Gravel Co., Inc. (Dayton Sand & Gravel), located in Hollis Center, Maine has applied to renew their Air Emission License, permitting the operation of their crushed stone and gravel facility.

**B. Emission Equipment**

**Rock Crushers:**

<u>Designation</u>	<u>Powered</u>	<u>Process Rate</u> <u>(tons/hour)</u>	<u>Control Device</u>	<u>Date of</u> <u>Manufacture</u>
Primary	Diesel #1	200	Spray nozzles	1981
Secondary	Diesel Gen. #2	200	Spray nozzles	1970

**Diesel Units:**

<u>Source ID</u>	<u>Max Capacity</u> <u>(MMBtu/hr)</u>	<u>Max Firing</u> <u>Rate</u> <u>(gal/hr)</u>	<u>Power</u> <u>Output</u>	<u>Fuel Type,</u> <u>% sulfur</u>
Diesel Drive #1	1.4	10 gal/hr	150 hp	Diesel, 0.5%
Diesel Generator #2	3.1	22.5 gal/hr	350 kW	Diesel, 0.5%

**C. Application Classification**

The application for Dayton Sand & Gravel does not include the licensing of increased emissions or the installation of new or modified equipment, therefore the license is considered to be a renewal of current licensed emissions units only.

**II. BEST PRACTICAL TREATMENT**

**A. Introduction**

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment

(BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

**B. Rock Crushers**

The primary and secondary rock crushers are portable units that were manufactured in 1981 and 1978 with rated capacities of 200 tons/hour each. Since Dayton Sand & Gravel has not demonstrated that they have been meeting the record keeping requirements of 40 CFR §60.676 of EPA New Source Performance Standards (NSPS) Subpart OOO, Dayton Sand & Gravel shall complete a one-time performance test on each crusher. The test shall demonstrate compliance with the opacity standards for the crushers and shall consist of a Method 9 test per 40 CFR 60 Appendix A. The Method 9 shall be performed on each crusher no later than 180 days of the spring 2004 start-up date. Dayton Sand & Gravel shall keep documentation to show that each crusher has undergone the performance test for the life of the crushers.

The regulated pollutant from the rock crushers is particulate emissions. To meet the requirements of Best Practical Treatment (BPT) for control of particulate matter (PM) emissions from the rock crushers, Dayton Sand & Gravel shall maintain water sprays on the rock crushers and operate as needed to control visible emissions. Visible emissions from the rock crushers shall be limited to no greater than 10% opacity on a 6-minute block average basis.

**C. Diesel Units**

Diesel Drive #1 is utilized primarily to power the primary rock crusher. Diesel Generator #2 provides electrical power to the secondary rock crusher. Both units fire diesel fuel with a maximum sulfur content not to exceed 0.5% by weight.

A summary of the BPT analysis for Diesel Drive #1 (10 gal/hour) and Diesel Generator #2 (22.5 gal/hour) is the following:

1. The total fuel use for the diesel units shall not exceed 10,000 gal/year of diesel fuel, based on a 12 month rolling total, with a maximum sulfur content not to exceed 0.5% by weight.

2. Chapter 106 regulates fuel sulfur content, however in this case a BPT analysis for SO<sub>2</sub> determined a more stringent limit of 0.5% was appropriate and shall be used.
3. Chapter 103 regulates PM emission limits for fuel fired equipment larger than 3 MMBtu/hr. The PM limit for Diesel Drive #1 is based upon AP-42 data dated 10/96. PM<sub>10</sub> limits are derived from the PM limits.
4. NO<sub>x</sub>, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
5. Visible emissions from each of the diesels shall each not exceed 20% opacity on a 6-minute block average, except for no more than two 6-minute block averages in a 3-hour period.

D. Stock Piles and Roadways

Visible emissions from a fugitive emission source shall not exceed 20% opacity, except for no more than 5-minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any 1-hour.

E. Facility Emissions

Annual facility emissions are calculated based on the following:

- The combustion of 10,000 gallons/year of diesel fuel, on a 12-month rolling total basis and with a sulfur content not to exceed 0.5% by weight.

**Total Licensed Annual Emissions for the Facility**  
(used to calculate the annual license fee)

PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
0.22	0.22	0.36	3.02	0.65	0.24

**III. AMBIENT AIR QUALITY ANALYSIS**

According to Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by-case basis. Based on the above total facility emissions, Dayton Sand & Gravel is below the emissions level required for modeling and monitoring.

**ORDER**

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-583-71-E-R subject to the following conditions:

**STANDARD CONDITIONS**

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions. [MEDEP Chapter 115]
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [MEDEP Chapter 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [MEDEP Chapter 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [MEDEP Chapter 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. § 353. [MEDEP Chapter 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [MEDEP Chapter 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [MEDEP Chapter 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [MEDEP Chapter 115]

- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [MEDEP Chapter 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [MEDEP Chapter 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
- A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
    - 1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
    - 2. pursuant to any other requirement of this license to perform stack testing.
  - B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
  - C. submit a written report to the Department within thirty (30) days from date of test completion.
- [MEDEP Chapter 115]
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
  - B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

- C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.  
[MEDEP Chapter 115]
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [MEDEP Chapter 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.  
[MEDEP Chapter 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [MEDEP Chapter 115]

## **SPECIFIC CONDITIONS**

- (16) **Rock Crushers**
- A. Dayton Sand & Gravel shall maintain spray nozzles for particulate control on the primary and secondary rock crushers and operate them as necessary to limit visible emissions to no greater than 10% opacity on a 6-minute block average basis. [MEDEP Chapters 115 (BPT) and 101]
- B. Dayton Sand & Gravel shall maintain a log detailing the maintenance on the water spray nozzles. The maintenance log shall be kept on-site at the rock crushing location. [MEDEP Chapter 115, BPT]
- C. Dayton Sand & Gravel shall maintain a log detailing and quantifying the hours of operation on a daily basis for all of the primary and secondary rock crushers. The operation log shall be kept on-site at the rock crushing location.  
[MEDEP Chapter 115, BPT]

D. Initial Performance Test

1. Dayton Sand & Gravel shall have an initial performance test performed on the primary and secondary crushers per the applicable sections of 40 CFR Part 60, Subpart OOO, §60.675. This consists of a certified Method 9 observation. The performance test shall be completed within 60 days after achieving the maximum production rate at which the unit will be operated, but no later than 180 days after the spring 2004 startup of the unit. Dayton Sand & Gravel shall submit a test notice to the regional inspector at least 30 days prior to the performance test. Any rescheduled test requires a 7-day notice to the regional inspector.
2. Dayton Sand & Gravel shall maintain records that indicate each of the crushers has undergone the initial performance test. These records shall be kept for the life of the crushers.

(17) **Diesel Units**

- A. Total fuel use for Diesel Drive #1 and Diesel Generator #2 shall not exceed 10,000 gal/year of #2 fuel oil with a maximum sulfur content not to exceed 0.5% by weight. Compliance shall be based on fuel receipts from the supplier showing the type and quantity of fuel delivered and records documenting fuel sulfur content from each delivery. Records of annual fuel use shall be kept on a 12-month rolling total basis. [MEDEP Chapter 115, BPT]
- B. Emissions shall not exceed the following:

Emission Unit	Pollutant	Lb/MMBtu	Origin and Authority
Diesel Generator #2	PM	0.12	MEDEP, Chapter 103, Section 2(B)(1)(a)

- C. Emissions shall not exceed the following [MEDEP Chapter 115, BPT]:

Emission Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Diesel Drive #1	0.44	0.44	0.73	6.18	1.33	0.49
Diesel Generator #2	0.38	0.38	1.60	13.7	2.95	1.09

- D. Visible emissions from each diesel unit shall not exceed 20% opacity on a 6-minute block average, except for no more than two 6-minute block averages in a continuous 3-hour period. [MEDEP Chapter 101]

(18) **Stockpiles and Roadways**

Visible emissions from a fugitive emission source shall not exceed 20% opacity, except for no more than five minutes in any 1-hour period. Compliance shall be

determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any one hour. [MEDEP Chapter 101]

**(19) Equipment Relocation** [MEDEP Chapter 115, BPT]

A. Dayton Sand & Gravel shall notify the Bureau of Air Quality, by a written notification at least 10 days in advance, prior to relocation of any equipment carried on this license. The notification shall be sent to:

Attn: Relocation Notice  
Maine DEP  
Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017

The notification shall include the address of the equipment's new location and the license number pertaining to the relocated equipment.

- B. Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification will be made to the respective county commissioners.
- C. If less than 10 days is necessary for notification, contact the regional inspector by phone to notify of the upcoming relocation. This phone contact with the regional inspector shall be followed up with a written notice of relocation with the appropriate information.

**(20)** Dayton Sand & Gravel shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order. [MEDEP Chapter 115, BPT]

**(21)** Dayton Sand & Gravel shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (Title 38 MRSA §605-C).



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Departmental  
Findings of Fact and Order  
Air Emission License

9

(22) **Payment of Fees**

Dayton Sand & Gravel shall pay the annual air emission license fee within 30 days of February 28th of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3.

DONE AND DATED IN AUGUSTA, MAINE THIS                      DAY OF                      2004.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
DAWN R. GALLAGHER, COMMISSIONER

**The term of this license shall be five (5) years from the signature date above.**

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: January 29, 2004

Date of application acceptance: March 8, 2004

Date filed with the Board of Environmental Protection: \_\_\_\_\_

This Order prepared by Rachel E. Pilling, Bureau of Air Quality.